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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,039	06/06/2006	Sadayuki Ukishima	029929-00032	1819

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ARENT FOX LLP  
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WASHINGTON, DC 20036

EXAMINER
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MILLER, MICHAEL G

ART UNIT	PAPER NUMBER
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1712

NOTIFICATION DATE	DELIVERY MODE
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07/21/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/541,039	<b>Applicant(s)</b> UKISHIMA ET AL.	
	<b>Examiner</b> MICHAEL G. MILLER	<b>Art Unit</b> 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

1. Examiner notes the amendment filed 05 MAY 2010. As a result of the amendment Claim 1 is amended and Claim 21 is new. Claims 1-21 are pending; Claim 8 is withdrawn.

### ***Response to Arguments***

2. Applicant's arguments, see below, filed 05 MAY 2010, with respect to the rejection(s) of claim(s) 1 under 35 U.S.C. 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Celinska et al (U.S. Patent 6,376,691, hereinafter '691). In summary, the prior art no longer reads on Claim 1 as presented because Claim 1 now precludes a mono-aluminum metal dispersion.

3. Applicant's remaining arguments with respect to claims 1-7 and 9-20 have been considered but are moot in view of the new ground(s) of rejection. Applicant argued that '709 did not provide a conductive film and that '709 did not teach elemental aluminum or an alloy of aluminum. The new rejection under '691 uses non-alloyed particles of tin and antimony to form a conductive film.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-7 and 9-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Celinska et al (U.S. Patent 6,376,691, hereinafter '691).
6. Claim 1 – '691 teaches a method of forming a transparent conductive film. The method comprises the steps applying, onto a base material, a dispersion containing fine particles of tin and antimony (Column 16 Lines 27-39); firing a coated layer in an atmosphere which never undergoes any oxidation of the foregoing metal (as disclosed at Column 13 Lines 41-51 and Column 14 Lines 1-22, the oxidation and oxide formation occurs during the annealing step, not the baking step); and subsequently firing the layer in an oxidizing atmosphere to thus form a transparent conductive film (Column 17 Lines 42-53; transparency discussed at Column 6 Lines 38-45).
7. Claim 2 – the precursors discussed at Column 15 Lines 15-33 will evolve a reducing atmosphere (inherent, as the listed metals cannot carry a negative charge and thus the non-metallic portions of the solvent will act as a reducing material).
8. Claim 3 – Column 14 Lines 23-67 teach the formation of a protective layer on top of the conductive layer; the precursors for the protective layer are of the same form as the conductive layer and will similarly evolve a reducing atmosphere.
9. Claim 4 – The prior art teaches a reducing non-oxidizing atmosphere; as such, the composition of the inert gas atmosphere is irrelevant.
10. Claim 5 – Rejected as Claim 4, as Claim 2 is chosen in the alternative to embody a reducing atmosphere.
11. Claim 6 – As cited at Column 17 Lines 42-53, oxygen is present in the oxidizing atmosphere.

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12. Claim 7 – Column 15 Lines 15-33 teach metal bonded to organic compounds and solvated in an organic carrier solution.
13. Claim 9 – Rejected as Claim 3.
14. Claim 10 – Rejected as Claim 4.
15. Claim 11 – Rejected as Claim 5.
16. Claim 12 – Rejected as Claim 6.
17. Claim 13 – Rejected as Claim 3 in view of Claim 6.
18. Claim 14 – Rejected as Claim 4.
19. Claim 15 – Rejected as Claim 5.
20. Claim 16 – Rejected as Claim 2 in view of Claim 7.
21. Claim 17 – Rejected as Claim 3 in view of Claim 7.
22. Claim 18 – Rejected as Claim 4.
23. Claim 19 – Rejected as Claim 5.
24. Claim 20 – Rejected as Claim 6 in view of Claim 7.
25. Claim 21 – as disclosed in Column 16 Lines 27-39 and Column 17 Lines 42-53, the temperatures never go above 500 degrees Celsius.

### ***Conclusion***

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL G. MILLER whose telephone number is (571)270-1861. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Cleveland can be reached on (571) 272-1418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael G. Miller/  
Examiner, Art Unit 1712

/Michael Cleveland/  
Supervisory Patent Examiner, Art Unit 1712